What is claimed is:

1. A signal transmission system for bidirectionally sending and receiving a single-ended signal between a first semiconductor integrated circuit device that operates under a first power supply voltage and a second semiconductor integrated circuit device that operates under a second power supply voltage which is lower than said first power supply voltage, comprising:

a transmission line having a predetermined characteristic impedance for performing bidirectional signal transmission between said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first CTT terminating circuit for being supplied with said first power supply voltage, said first CTT terminating circuit having a resistance value in conformity with said characteristic impedance and disposed on a signal reception end of said first semiconductor integrated circuit device;

a second CTT terminating circuit for being supplied with said second power supply voltage, said second CTT terminating circuit having a resistance value in conformity with said characteristic impedance and disposed on a signal reception end of said second semiconductor integrated circuit device;

a reference voltage generating circuit for generating reference voltages which serve as a threshold value for determining the voltage of said single-ended signal and supplying the reference voltages respectively to said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first driver of push-pull configuration for sending said single-ended signal from said first semiconductor integrated circuit device, said first driver having an on resistance value set such that the reference voltages used

in said first semiconductor integrated circuit device and said second semiconductor integrated circuit device are equal to each other; and

a second driver of push-pull configuration for sending said single-ended signal from said second semiconductor integrated circuit device, said second driver having an on resistance set such that the reference voltages used in said first semiconductor integrated circuit device and said second semiconductor integrated circuit device are equal to each other.

2. The signal transmission system according to claim 1, wherein said reference voltages are represented by 0.25 (V1 + V2) where V1 represents said first power supply voltage and V2 represents said second power supply voltage.

3. The signal transmission system according to claim 1, wherein said reference voltages are represented by 0.5V1 where V1 represents said first power supply voltage.

4. The signal transmission system according to claim 1, wherein said reference voltages are represented by 0.6V1 where V1 represents said first power supply voltage.

5. The signal transmission system according to claim 1, wherein said reference voltages are represented by 0.5V2 where V2 represents said second power supply voltage.

6. The signal transmission system according to claim 1, wherein the path of return current of said single-ended signal flowing through said transmission line comprises a ground plane.

7. A signal transmission system for bidirectionally sending and receiving a single-ended signal between a first semiconductor integrated circuit device that operates under a first power supply voltage and a second semicon-

ductor integrated circuit device that operates under a second power supply voltage which is lower than said first power supply voltage, comprising:

a transmission line having a predetermined characteristic impedance for performing bidirectional signal transmission between said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first driver of push-pull configuration for sending said single-ended signal from said first semiconductor integrated circuit device, said first driver having an on resistance in conformity with said characteristic impedance;

a second driver of push-pull configuration for sending said single-ended signal from said second semiconductor integrated circuit device, said second driver having an on resistance in conformity with said characteristic impedance;

a reference voltage generating circuit for generating reference voltages which serve as a threshold value for determining the voltage of said single-ended signal and supplying the reference voltages respectively to said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first CTT terminating circuit for being supplied with said first power supply voltage, said first CTT terminating circuit having a resistance value set such that the reference voltages used in said first semiconductor integrated circuit device and said second semiconductor integrated circuit device are equal to each other, and disposed on a signal reception end of said first semiconductor integrated circuit device; and

a second CTT terminating circuit for being supplied with said second power supply voltage, said second CTT terminating circuit having a resistance value set such that the reference voltages used in said first semicon-

ductor integrated circuit device and said second semiconductor integrated circuit device are equal to each other, and disposed on a signal reception end of said second semiconductor integrated circuit device.

8. The signal transmission system according to claim 7, wherein said reference voltages are represented by 0.25 (V1 + V2) where V1 represents said first power supply voltage and V2 represents said second power supply voltage.

9. The signal transmission system according to claim 7, wherein the path of return current of said single-ended signal flowing through said transmission line comprises a ground plane.

10. A signal transmission system for bidirectionally sending and receiving a single-ended signal between a first semiconductor integrated circuit device that operates under a first power supply voltage and a second semiconductor integrated circuit device that operates under a second power supply voltage which is lower than said first power supply voltage, comprising:

a transmission line having a predetermined characteristic impedance for performing bidirectional signal transmission between said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first driver of push-pull configuration for sending said single-ended signal from said first semiconductor integrated circuit device, said first driver having an on resistance in conformity with said characteristic impedance;

a second driver of push-pull configuration for sending said single-ended signal from said second semiconductor integrated circuit device, said second driver having an on resistance in conformity with said characteristic impedance;

a first CTT terminating circuit for being supplied with said first power supply voltage, said first CTT terminating circuit having a resistance value in conformity with said characteristic impedance and disposed on a signal reception end of said first semiconductor integrated circuit device;

a second CTT terminating circuit for being supplied with said second power supply voltage, said second CTT terminating circuit having a resistance value in conformity with said characteristic impedance and disposed on a signal reception end of said second semiconductor integrated circuit device; and

a reference voltage generating circuit for supplying a common reference voltage which serves as a threshold value for determining the voltage of said single-ended signal to said first semiconductor integrated circuit device and said second semiconductor integrated circuit device.

11. The signal transmission system according to claim 10, wherein said reference voltages are represented by 0.25 (V1 + V2) where V1 represents said first power supply voltage and V2 represents said second power supply voltage.

12. The signal transmission system according to claim 10, wherein the path of return current of said single-ended signal flowing through said transmission line comprises a ground plane.

13. A signal transmission system for bidirectionally sending and receiving a single-ended signal between a first semiconductor integrated circuit device that operates under a first power supply voltage and a second semiconductor integrated circuit device that operates under a second power supply voltage which is lower than said first power supply voltage, comprising:

a transmission line having a predetermined characteristic impedance for performing bidirectional signal transmission between said first

semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first VTT terminating circuit for being supplied with a voltage which is 1/2 of said second power supply voltage, said first VTT terminating circuit having a resistance value in conformity with said characteristic impedance and disposed on a signal reception end of said first semiconductor integrated circuit device;

a second VTT terminating circuit for being supplied with a voltage which is 1/2 of said second power supply voltage, said second VTT terminating circuit having a resistance value in conformity with said characteristic impedance and disposed on a signal reception end of said second semiconductor integrated circuit device;

a reference voltage generating circuit for generating reference voltages which serve as a threshold value for determining the voltage of said single-ended signal and supplying the reference voltages respectively to said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first driver of push-pull configuration for sending said single-ended signal from said first semiconductor integrated circuit device, said first driver having an on resistance value set such that the reference voltages used in said first semiconductor integrated circuit device and said second semiconductor integrated circuit device are equal to each other; and

a second driver of push-pull configuration for sending said single-ended signal from said second semiconductor integrated circuit device, said second driver having an on resistance set such that the reference voltages used in said first semiconductor integrated circuit device and said second semiconductor integrated circuit device are equal to each other.

14. The signal transmission system according to claim 13, wherein said reference voltages are represented by 0.5V2 where V2 represents said second power supply voltage.

15. The signal transmission system according to claim 13, wherein the path of return current of said single-ended signal flowing through said transmission line comprises a ground plane.

16. A signal transmission system for bidirectionally sending and receiving a single-ended signal between a first semiconductor integrated circuit device that operates under a first power supply voltage and a second semiconductor integrated circuit device that operates under a second power supply voltage which is lower than said first power supply voltage, comprising:

a transmission line having a predetermined characteristic impedance for performing bidirectional signal transmission between said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first driver of push-pull configuration for sending said single-ended signal from said first semiconductor integrated circuit device, said first driver having an on resistance in conformity with said characteristic impedance;

a second driver of push-pull configuration for sending said single-ended signal from said second semiconductor integrated circuit device, said second driver having an on resistance in conformity with said characteristic impedance;

a reference voltage generating circuit for generating reference voltages which serve as a threshold value for determining the voltage of said single-ended signal and supplying the reference voltages respectively to said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first VTT terminating circuit for being supplied with a voltage which is 1/2 of said first power supply voltage, said first VTT terminating circuit having a resistance value set such that the reference voltages used in said first semiconductor integrated circuit device and said second semiconductor integrated circuit device are equal to each other, and disposed on a signal reception end of said first semiconductor integrated circuit device; and

a second VTT terminating circuit for being supplied with a voltage which is 1/2 of said second power supply voltage, said second VTT terminating circuit having a resistance value set such that the reference voltages used in said first semiconductor integrated circuit device and said second semiconductor integrated circuit device are equal to each other, and disposed on a signal reception end of said second semiconductor integrated circuit device.

17. The signal transmission system according to claim 16, wherein the path of return current of said single-ended signal flowing through said transmission line comprises a ground plane.

18. A signal transmission system for bidirectionally sending and receiving a single-ended signal between a first semiconductor integrated circuit device that operates under a first power supply voltage and a second semiconductor integrated circuit device that operates under a second power supply voltage which is lower than said first power supply voltage, comprising:

a transmission line having a predetermined characteristic impedance for performing bidirectional signal transmission between said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first VTT terminating circuit for being supplied with a voltage which is 1/2 of said first power supply voltage, said first VTT terminating circuit

having a resistance value in conformity with said characteristic impedance and disposed on a signal reception end of said first semiconductor integrated circuit device;

a second VTT terminating circuit for being supplied with a voltage which is 1/2 of said second power supply voltage, said second VTT terminating circuit having a resistance value in conformity with said characteristic impedance and disposed on a signal reception end of said second semiconductor integrated circuit device;

a reference voltage generating circuit for generating reference voltages which serve as a threshold value for determining the voltage of said single-ended signal and supplying the reference voltages respectively to said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first driver of push-pull configuration for sending said single-ended signal from said first semiconductor integrated circuit device, said first driver having an on resistance value set such that the reference voltages used in said first semiconductor integrated circuit device and said second semiconductor integrated circuit device are equal to each other; and

a second driver of push-pull configuration for sending said single-ended signal from said second semiconductor integrated circuit device, said second driver having an on resistance set such that the reference voltages used in said first semiconductor integrated circuit device and said second semiconductor integrated circuit device are equal to each other.

19. The signal transmission system according to claim 18, wherein the path of return current of said single-ended signal flowing through said transmission line comprises a ground plane.

20. A signal transmission system for bidirectionally sending and receiving a single-ended signal between a first semiconductor integrated circuit device that operates under a first power supply voltage and a second semiconductor integrated circuit device that operates under a second power supply voltage which is lower than said first power supply voltage, comprising:

a transmission line having a predetermined characteristic impedance for performing bidirectional signal transmission between said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first VTT terminating circuit for being supplied with a voltage which is 1/2 of said second power supply voltage, said first VTT terminating circuit having a resistance value in conformity with said characteristic impedance and disposed on a signal reception end of said first semiconductor integrated circuit device;

a second VTT terminating circuit for being supplied with a voltage which is 1/2 of said first power supply voltage, said second VTT terminating circuit having a resistance value in conformity with said characteristic impedance and disposed on a signal reception end of said second semiconductor integrated circuit device;

a reference voltage generating circuit for generating reference voltages which serve as a threshold value for determining the voltage of said single-ended signal and supplying the reference voltages respectively to said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first driver of push-pull configuration for sending said single-ended signal from said first semiconductor integrated circuit device, said first driver having an on resistance value set such that the reference voltages used

in said first semiconductor integrated circuit device and said second semiconductor integrated circuit device are equal to each other; and

a second driver of push-pull configuration for sending said single-ended signal from said second semiconductor integrated circuit device, said second driver having an on resistance set such that the reference voltages used in said first semiconductor integrated circuit device and said second semiconductor integrated circuit device are equal to each other.

21. The signal transmission system according to claim 20, wherein the path of return current of said single-ended signal flowing through said transmission line comprises a ground plane.

22. A signal transmission system for bidirectionally sending and receiving a single-ended signal between a first semiconductor integrated circuit device that operates under a first power supply voltage and a second semiconductor integrated circuit device that operates under a second power supply voltage which is lower than said first power supply voltage, comprising:

a transmission line having a predetermined characteristic impedance for performing bidirectional signal transmission between said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first VTT terminating circuit for being supplied with a voltage which is 1/2 of said first power supply voltage, said first VTT terminating circuit having a resistance value in conformity with said characteristic impedance and disposed on a signal reception end of said first semiconductor integrated circuit device;

a second VTT terminating circuit for being supplied with a voltage which is 1/2 of said first power supply voltage, said second VTT terminating circuit having a resistance value in conformity with said characteristic im-

pedance and disposed on a signal reception end of said second semiconductor integrated circuit device;

a reference voltage generating circuit for generating reference voltages which serve as a threshold value for determining the voltage of said single-ended signal and supplying the reference voltages respectively to said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first driver of push-pull configuration for sending said single-ended signal from said first semiconductor integrated circuit device, said first driver having an on resistance value set such that the reference voltages used in said first semiconductor integrated circuit device and said second semiconductor integrated circuit device are equal to each other; and

a second driver of push-pull configuration for sending said single-ended signal from said second semiconductor integrated circuit device, said second driver having an on resistance set such that the reference voltages used in said first semiconductor integrated circuit device and said second semiconductor integrated circuit device are equal to each other.

23. The signal transmission system according to claim 22, wherein said reference voltages are represented by 0.5V1 where V1 represents said first power supply voltage.

24. The signal transmission system according to claim 22, wherein said reference voltages are represented by 0.5V2 where V2 represents said second power supply voltage.

25. The signal transmission system according to claim 22, wherein the path of return current of said single-ended signal flowing through said transmission line comprises a ground plane.

26. A signal transmission system for bidirectionally sending and receiving a single-ended signal between a first semiconductor integrated circuit device that operates under a first power supply voltage and a second semiconductor integrated circuit device that operates under a second power supply voltage which is lower than said first power supply voltage, comprising:

a transmission line having a predetermined characteristic impedance for performing bidirectional signal transmission between said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first VTT terminating circuit for being supplied with said first power supply voltage, said first VTT terminating circuit having a resistance value in conformity with said characteristic impedance and disposed on a signal reception end of said first semiconductor integrated circuit device;

a second VTT terminating circuit for being supplied with said second power supply voltage, said second VTT terminating circuit having a resistance value in conformity with said characteristic impedance and disposed on a signal reception end of said second semiconductor integrated circuit device;

a reference voltage generating circuit for generating reference voltages which serve as a threshold value for determining the voltage of said single-ended signal and supplying the reference voltages respectively to said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first driver of open drain configuration for sending said single-ended signal from said first semiconductor integrated circuit device, said first driver having an on resistance value set such that the reference voltages used

in said first semiconductor integrated circuit device and said second semiconductor integrated circuit device are equal to each other; and

a second driver of open drain configuration for sending said single-ended signal from said second semiconductor integrated circuit device, said second driver having an on resistance set such that the reference voltages used in said first semiconductor integrated circuit device and said second semiconductor integrated circuit device are equal to each other.

27. The signal transmission system according to claim 26, wherein said reference voltages are equal to a fractional value of either said first power supply voltage or said second power supply voltage.

28. The signal transmission system according to claim 26, wherein the path of return current of said single-ended signal flowing through said transmission line comprises a ground plane.

29. A signal transmission system for bidirectionally sending and receiving a single-ended signal between a first semiconductor integrated circuit device that operates under a first power supply voltage and a second semiconductor integrated circuit device that operates under a second power supply voltage which is lower than said first power supply voltage, comprising:

a transmission line having a predetermined characteristic impedance for performing bidirectional signal transmission between said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first driver of push-pull configuration for sending said single-ended signal from said first semiconductor integrated circuit device, said first driver having an on resistance in conformity with said characteristic impedance;

a second driver of push-pull configuration for sending said single-ended signal from said second semiconductor integrated circuit device,

said second driver having an on resistance in conformity with said characteristic impedance;

a reference voltage generating circuit for generating reference voltages which serve as a threshold value for determining the voltage of said single-ended signal and supplying the reference voltages respectively to said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first VTT terminating circuit for being supplied with said first power supply voltage, said first VTT terminating circuit having a resistance value set such that the reference voltages used in said first semiconductor integrated circuit device and said second semiconductor integrated circuit device are equal to each other, and disposed on a signal reception end of said first semiconductor integrated circuit device; and

a second VTT terminating circuit for being supplied with said second power supply voltage, said second VTT terminating circuit having a resistance value set such that the reference voltages used in said first semiconductor integrated circuit device and said second semiconductor integrated circuit device are equal to each other, and disposed on a signal reception end of said second semiconductor integrated circuit device.

30. The signal transmission system according to claim 29, wherein said reference voltages are represented by (V1 + V2)/3 where V1 represents said first power supply voltage and V2 represents said second power supply voltage.

31. The signal transmission system according to claim 29, wherein the path of return current of said single-ended signal flowing through said transmission line comprises a ground plane.

32. A signal transmission system for bidirectionally sending and receiving a single-ended signal between a first semiconductor integrated circuit device that operates under a first power supply voltage and a second semiconductor integrated circuit device that operates under a second power supply voltage which is lower than said first power supply voltage, comprising:

a transmission line having a predetermined characteristic impedance for performing bidirectional signal transmission between said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first VTT terminating circuit for being supplied with said first power supply voltage, said first VTT terminating circuit having a resistance value in conformity with said characteristic impedance and disposed on a signal reception end of said first semiconductor integrated circuit device;

a second VTT terminating circuit for being supplied with said second power supply voltage, said second VTT terminating circuit having a resistance value in conformity with said characteristic impedance and disposed on a signal reception end of said second semiconductor integrated circuit device;

a reference voltage generating circuit for generating reference voltages which serve as a threshold value for determining the voltage of said single-ended signal and supplying the reference voltages respectively to said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first driver of push-pull configuration for sending said single-ended signal from said first semiconductor integrated circuit device, said first driver having an on resistance value set such that the reference voltages used

in said first semiconductor integrated circuit device and said second semiconductor integrated circuit device are equal to each other; and

a second driver of push-pull configuration for sending said single-ended signal from said second semiconductor integrated circuit device, said second driver having an on resistance set such that the reference voltages used in said first semiconductor integrated circuit device and said second semiconductor integrated circuit device are equal to each other.

33. The signal transmission system according to claim 32, wherein said reference voltages are represented by (V1 + V2)/3 where V1 represents said first power supply voltage and V2 represents said second power supply voltage.

34. The signal transmission system according to claim 32, wherein the path of return current of said single-ended signal flowing through said transmission line comprises a ground plane.

35. A signal transmission system for bidirectionally sending and receiving a single-ended signal between a first semiconductor integrated circuit device that operates under a first power supply voltage and a second semiconductor integrated circuit device that operates under a second power supply voltage which is lower than said first power supply voltage, comprising:

a transmission line having a predetermined characteristic impedance for performing bidirectional signal transmission between said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first CTT terminating circuit for being supplied with said first power supply voltage, said first CTT terminating circuit having a resistance value in conformity with said characteristic impedance and disposed on a signal reception end of said first semiconductor integrated circuit device;

a second CTT terminating circuit for being supplied with said second power supply voltage, said second CTT terminating circuit having a resistance value in conformity with said characteristic impedance and disposed on a signal reception end of said second semiconductor integrated circuit device;

a reference voltage generating circuit for generating reference voltages which serve as a threshold value for determining the voltage of said single-ended signal and supplying the reference voltages respectively to said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first driver of push-pull configuration for sending said single-ended signal from said first semiconductor integrated circuit device, said first driver having an on resistance value set such that the reference voltage used in said first semiconductor integrated circuit device is in conformity with 1/2 of said first power supply voltage; and

a second driver of push-pull configuration for sending said single-ended signal from said second semiconductor integrated circuit device, said second driver having an on resistance set such that the reference voltage used in said second semiconductor integrated circuit device is in conformity with 1/2 of said second power supply voltage.

36. The signal transmission system according to claim 35, wherein the path of return current of said single-ended signal flowing through said transmission line comprises a ground plane.

37. A signal transmission system for bidirectionally sending and receiving a single-ended signal between a first semiconductor integrated circuit device that operates under a first power supply voltage and a second semicon-

ductor integrated circuit device that operates under a second power supply voltage which is lower than said first power supply voltage, comprising:

a transmission line having a predetermined characteristic impedance for performing bidirectional signal transmission between said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first driver of push-pull configuration for sending said single-ended signal from said first semiconductor integrated circuit device, said first driver having an on resistance in conformity with said characteristic impedance;

a second driver of push-pull configuration for sending said single-ended signal from said second semiconductor integrated circuit device, said second driver having an on resistance in conformity with said characteristic impedance;

a reference voltage generating circuit for generating reference voltages which serve as a threshold value for determining the voltage of said single-ended signal and supplying the reference voltages respectively to said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

a first CTT terminating circuit for being supplied with said first power supply voltage, said first CTT terminating circuit having a resistance value set such that the reference voltage used in said first semiconductor integrated circuit device is in conformity with 1/2 of said first power supply voltage, and disposed on a signal reception end of said first semiconductor integrated circuit device; and

a second CTT terminating circuit for being supplied with said second power supply voltage, said second CTT terminating circuit having a resistance value set such that the reference voltage used in said second semi-

conductor integrated circuit device is in conformity with 1/2 of said second power supply voltage, and disposed on a signal reception end of said second semiconductor integrated circuit device.

38. The signal transmission system according to claim 37, wherein the path of return current of said single-ended signal flowing through said transmission line comprises a ground plane.

39. A signal transmission system for bidirectionally sending and receiving a differential signal between a first semiconductor integrated circuit device that operates under a first power supply voltage and a second semiconductor integrated circuit device that operates under a second power supply voltage which is lower than said first power supply voltage, comprising:

two transmission lines having a predetermined ODD mode characteristic impedance for performing bidirectional signal transmission between said first semiconductor integrated circuit device and said second semiconductor integrated circuit device;

two first drivers of push-pull configuration for sending said differential signal from said first semiconductor integrated circuit device, said first drivers having an on resistance in conformity with said characteristic impedance;

two second drivers of push-pull configuration for sending said differential signal from said second semiconductor integrated circuit device, said second drivers having an on resistance in conformity with said characteristic impedance;

a first bridge terminating circuit having a resistance value in conformity with twice said ODD mode characteristic impedance and disposed on a signal reception end of said first semiconductor integrated circuit device; and

a second bridge terminating circuit having a resistance value in conformity with twice said ODD mode characteristic impedance and disposed on a signal reception end of said second semiconductor integrated circuit device.